

Claims

[c1] **What is claimed is:**

1. A method of compensating for brightness and chromatic aberration of an LCD, the method comprising the following steps:

providing a set of calibration gamma curves; and applying different driving voltages to corresponding positions of the LCD according to the set of calibration gamma curves so that at a same gray scale and at a same fundamental color, brightness is identical and no chromatic aberration occurs in all the positions of the LCD.

[c2] 2. The method of claim 1 wherein the step of providing the set of calibration gamma curves comprises:

detecting gamma curves of all the positions of the LCD; selecting a transmission rate as a basis to define a voltage range for controlling gray scales at each position; determining the driving voltage of each corresponding position at each gray scale; and normalizing the driving voltages of all the positions at all gray scales for obtaining the set of calibration gamma curves.

- [c3] 3.The method of claim 2 wherein the step of detecting the gamma curves of all the positions comprises obtaining a gamma curve of a position between any two positions that have known gamma curves by an interpolation method.
- [c4] 4.The method of claim 2 wherein the step of detecting the gamma curves of all the positions comprises obtaining a gamma curve of a position positioned at a center of gravity of three positions that have known gamma curves by utilizing a formula of center of gravity.
- [c5] 5.A circuit architecture for compensating for brightness and chromatic aberration of an LCD comprising:
 - a gray scale determination device for determining a gray scale of a position and outputting a gray scale selection signal;
 - a calibration device providing a calibration gamma curve for compensating for brightness and chromatic aberration of the position; and
 - a voltage generating device for generating a driving voltage to the position according to the gray scale selection signal and the calibration gamma curve.